

IBM Research Report

Function of Social Browsing in Integration into a Workplace

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Abstract: Knowledge of the social environment in an organization is critical to many aspects of successful integration into the workplace. This paper focuses on supporting observation of the social environment in a physically co-present community of interns through a Web site containing relevant static and dynamic social information. This brief case study presents an account of the type of information that was useful and how it was used. Our analyses revealed that a simple Web site consisting of persistent conversation and support for the visibility of participants enabled users to both extract and provide social information that promoted integration into the workplace.

Keywords: physical community, prominence, social browsing, social norms, workplace integration.

1 Introduction

Knowledge-worker mobility continues to increase around the world. In the United States, a person on average changes jobs every 3.5 years. While not surprising in a country with a long-standing tradition of job mobility, its increase in countries that previously had lifetime employment, such as Japan (Lange, 2000) underscores the pervasiveness of this phenomenon. The benefits are many, including increased diffusion of ideas and the evolution of social cohesion among previously unconnected groups (Granovetter 1973). However, there are also serious costs, to the individual and to the employer, that accrue from the lack of integration of new employees into the workplace communities. Allen (1977) and others have noted that the success and effectiveness of workplace organizations are dependent on the flow of information, the transmission of office culture, and the development of mutual understanding and trust among employees (Constant et al. 1997; McDonald & Ackerman, 1998). They develop over time through informal communication (Kraut et. al., 1993).

A simple online environment, such as a *community network* that provides information about what's going on in the community, can facilitate the integration of individuals into geographic communities by promoting cohesion in the communities (Schuler 1994). The important characteristics of such community networks are that they enable participants to be producers as well as consumers, of information.

A focus on people, rather than events and resources, may be more important in environments intended to support the integration of employees into a new work context. It not only enables the new

employee to learn who may be the source of information, but also provide the socially nuanced information necessary to navigate the context in which the information source is embedded (Allen 1977). Thus, tools that support new members in browsing the social environment are expected to be critical.

We use the term social browsing, as others have done (e.g., Root 1988), to refer to behaviors that enable individuals to observe the behavior of people in their environment. We report on analyses of online social browsing behavior by an intern community using a Web site designed to support their integration into a new workplace. The study seeks to uncover the nature of the intern's social browsing behavior and to explore the ways in which social browsing helps to promote their integration into the organization. Social browsing serves the dual function of providing information about the social environment and providing the opportunities to contribute to the social environment. Both functions are important for promoting the development of the social cohesion necessary for effective workplace organizations.

2 Background

We worked with our Human Resources partners to identify ways to support interns in their transition to and during their summer assignments. Interviews with former interns highlighted the need for supplementing official information from the employer with idiosyncratic, experience-based information provided by peers. Based on past research showing the value of online environments, we developed a Web site, known as Portkey, as one approach to support interns in their transition into the company.

2.1 Portkey and its Design

Portkey was designed with two specific goals: 1) to foster and support the sharing of relevant personal experiences among interns and 2) to facilitate the development of personal and professional social networks. Participation and information sharing were supported by the inclusion of *Peertalk* which provided support for persistent, asynchronous discussion. A *meta*-reading of discussion posts, which focuses on *how* the communication takes place in addition to *what* is said, provides an additional source for social browsing (Erickson 1997). Visibility of members and their activities was provided through a set of resources, called *People* pages, that presented the profile of each member, directory tools to access these pages, and a serendipitous introduction feature that highlighted members. Contributions were attributed to their authors through links to personal profiles in order to promote accountability and support cooperation (e.g., Isaacs et. al., 1996). For more details about Portkey's design and capabilities, see Girgensohn & Lee (2002).

2.2 User Population

Portkey was open to interns, their mentors and managers, and sponsors of the program. In total, 738 people had accounts of which 340 were interns. The interns accounted for 95% of the Portkey usage.

2.3 Data Collection

Our results are based on *quantitative* analyses of interns' Web page access and *qualitative* analyses of interview data and Peertalk postings. The 160,000 page requests were obtained from an enhanced server log that included session IDs and user IDs. The timestamp of the log records was transformed from personal internship time to normalized internship time to allow comparison across interns at the same period in their internship (e.g., week -1 represents one week before start of internship for all students independent of start date). In addition, three group interview sessions were conducted with a total of 20 interns. The sessions (one random group and two participation-based groups (high, low)) were used to

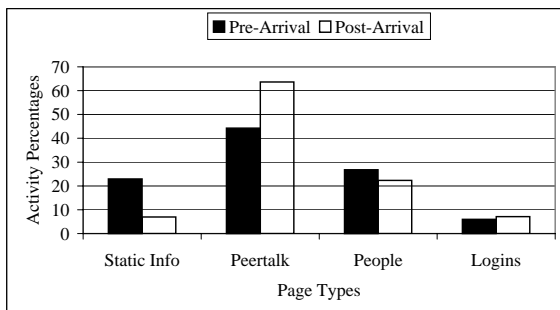


Figure 1: Page type viewing percentages for interns pre- and post-arrival at the workplace. Note: Login data is included to provide baseline data.

explore further what was observed in the logs and persistent discussion messages.

3 The Function of Social Browsing

An examination of the interns' page accesses for the three main categories (i.e., Static Info, People, and Peertalk) before and after the interns arrived at the workplace reveals that the People and Login page views were equivalent for the two time periods (see Figure 1). In contrast, the page views for Static Info and Peertalk pages change from pre-arrival to post-arrival (i.e., from 20% to 10% for Static Info pages and over 40% to 65% for Peertalk pages). An ANOVA analysis of the time period (before, after) and type of content (Static Info, Peertalk, People pages) reveals a highly significant interaction effect ($F_{(3, 252)} = 6.7, p < .0001$). Figure 2 shows the source of this interaction: progressively increasing interest in Peertalk,¹ steady interest in People, and progressively less interest in the Static Info pages.

While this stands to reason given the basic, unchanging content of the Static Info pages (e.g., housing and workplace policy) and the dynamic and increasing content of the Peertalk pages, it was also clear that the interns made active use of Portkey throughout their internships. This behavior differed from previous years when similar Static Info pages and a Lotus Notes discussion database were provided. In those cases, which lacked visibility of people, usage declined substantially a couple of weeks into the internship period. Clearly, in the case of Portkey, usage patterns indicate that the interns continued to find value in the site.

To find out what they were getting, we examine the two sets of values that the interns derived from social browsing and the instrumental role of social browsing in the interns' integration into the work-

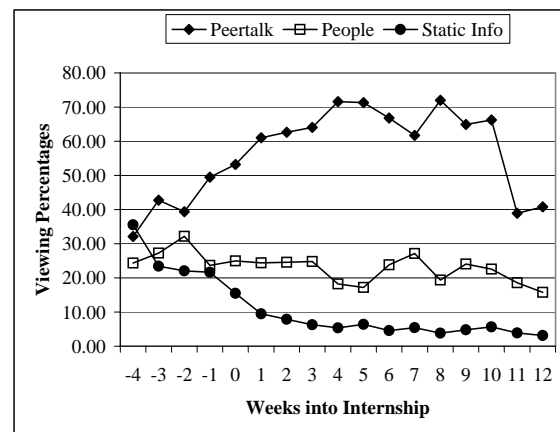


Figure 2: Page type viewing percentages by number of weeks into internship.

¹ The dip Peertalk at the end is due to a four-fold increase in Logins while postings held constant.

place. The first is *extracting* value from the social content that supported their learning about the social environment. The second is *providing* value to their peers in the form of contributions to Peertalk and People pages to enhance their social environment.

3.1 Extracting Value

The interviews provided many examples of how the interns used the site to supplement their knowledge of people in support of their interactions with them.

Interns reported engaging in *targeted* searches to obtain additional information on people whom they had met at a gathering such as intern-mentor lunches. The directories that aggregated members according to various socially meaningful dimensions (e.g., country of origin, place of study) were particularly useful when an intern had only partial information to seed their search. For example, one intern who was interested in following up with “a French student from MIT whose first name began with La” made his search through the directory by country of origin.

The interns used *exploratory* search to identify people with similar interest to theirs. This kind of search was used for both professional reasons (e.g., to support networking to find an internship for next year) and social reasons (e.g., people interested in playing soccer). The interns reported spending concentrated periods of time “... just looking around...” through the People pages in search of “interesting people” or “trying to match names and faces.” Consistent with these reports, the log analyses showed that the interns devoted 48.2% of their sessions to viewing People and/or Peertalk pages only. Two patterns they reported in the interviews were to start with someone’s profile and then find what they have said and, conversely, to read an interesting post and then to look up its author’s profile page.

Log data also showed that the interns used the People pages to familiarize themselves with the prominent permanent researchers in their environment. People who were prominent in the interns’ view of the workplace, for example, managers with many interns reporting to them or involvement in the intern program, aroused significantly more interest than others. Ten percent of the 398 permanent researchers received 50% of the total Profile views. To a lesser extent, prominence for this group also derived from posting on the site. The number of posts was weakly predictive of the number of times their profile was viewed ($R = .52$, $t_{(364)}$, $p < .001$; 27% of the variance accounted for).

Posts to Peertalk were also used to get to know people over time. Some interns noted that finding certain people who “said interesting things” prompted them to search out “their collected works.” In fact, several of the interns requested the directories by first name, by location, and by interests through a forum soliciting ideas for improvement of the site.

Portkey also provided the interns with an opportunity to become known through their posts. We did a regression analysis to see if the number of posts made by an intern would predict the number of times his or her People page was viewed by others. The regression coefficient produced an $R = .78$ ($t_{(349)} = 15.0$, $p < .001$). The results shows that the number of posts made by an intern is a very good predictor of the number of times their profile was viewed, accounting for 62% of the variability in the data. Through the interviews it became clear that frequent posters had become known to their peers.

3.2 Providing Value

As a whole, the interns posted actively on Portkey. Of the 284 interns who participated on the site, 156 (55%) made at least one of the 1677 intern posts. This rate is in line with the average reported by (Nonnecke and Preece, 2000) for a sample of 77 health-related email distribution lists (54.5%). It is significantly higher than the rate they reported (28%) for a sample of 21 software-related lists. In contrast, the permanent researchers participated very little. They corresponded to 54% of the eligible 738 users but accounted for only 5% of the posting.

There is no TV in my room so I plan to buy a used one for these three months. Any suggestions?

Excerpt 1: An early post requesting recommendations.

The tenor of the posts changed dramatically over the summer. Initially, most of the posts focused on information exchange related to housing issues and to a lesser extent, to transportation. The messages were stated in a polite, personal manner even though the focus was on external rather than personal issues (see Excerpt 1). Posts with an impersonal announcement style were very rare (see Excerpt 2).

Check out the Employee Purchase Program. Good price on laptops.

Excerpt 2: An early post with an impersonal style.

After arrival, attention focused initially on workplace topics (e.g., seminars) but drifted more to after-work, social topics (e.g., sports, restaurants) and then to informally organized weekend group outings (see Excerpt 3). Some of the messages were again focused on exchange of information structured in question-and-answer format. As the summer progressed, people became more playful. Interns reported using the site as a place to unwind and relax for a few minutes over the course of their day. The noted that Portkey was “... a good place to take a break ...” and “... to let off some steam ...”

Some of this playfulness included “performing for others” through satirical threads, original poems, jokes and the like (see Excerpt 4). Increasingly, the interns’ personality was being expressed through their posts. As one intern put it, just as the interns

If anyone here surfs (real surfing not Internet), I'll be making trips to Montauk, Rhode Island and New Jersey shore just about every weekend or two. Drop me a note if you're interested.

Excerpt 3: A later post for informal organization of outing. realized, in time, that they could come to work in shorts and sandals rather than a suit, they came to realize that they could use Portkey to have fun and socialize with each other.

This incipient interest in relating to each other evolved further during the final month of the site when their behavior began to suggest that they were beginning to see themselves as something of a group.

A very active thread had developed which satirized one of the employer's software products. When it first appeared, we attributed it to a more extreme form of playfulness and were frankly surprised by the interns' boldness and great freedom in making fun of their employer on the company-sponsored site to which permanent researchers had access. It was through our interviews with the posters that we learned about the effort to call out people's online behavior. A number of the active members of the group felt that people were making inappropriate posts. This satirical thread was accompanied by an open, at times, heated and personal discussion of appropriate posting. Both the discussions and seemingly unrelated playful posts were part of a self-reflective undertaking in which they struggled with reconciling the different individual points of view about appropriate posting behavior into a coherent point of view that would govern the entire group's actions.

4 Concluding Remarks

Schuler (1994) pointed out one of the great values of community networks is that participants are able to both produce and consume information. In the case of Portkey, this creation went beyond mere information for others to consume. Two examples that we highlight here are the evolution of prominence and the evolution of norms. They were part of a broader set of values that the interns were able to *extract* and to *provide* through simple, standard tools such as People and Peertalk.

Also, the values derived from social browsing were instrumental in supporting their integration into

Student B: I am still having trouble interpreting the meaning of this poem...

Student C: Go to the Thirsty Turtle in White Plains. On your jihad, all will be answered and all will become clear, what once was not.

Excerpt 4: A partial exchange in a thread where the original post was a poem entitled "Thirsty Turtle."

the workplace environment in two important ways. First, knowledge of people — who they are, what they look like, how they behave — supports the development of both professional and personal relationships with new peers. Second, the development of a group sense emerged from interaction about more general topics. These discussions enabled people to develop reputations and to allow leaders to emerge. Clearly, observation is not divorced from interaction: the two go hand in hand as each fuels the other. On Portkey, this manifested in their interest in contributions to People and Peertalk pages.

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